

REMARKS

The above amendments are made in response to the final Office action of July 11, 2007. The Examiner's reconsideration is respectfully requested in view of the above amendment and the following remarks.

Claims 1, 5 and 6 are pending. Claims 1, 5 and 6 have been amended. Claims 1, 5 and 6 remain pending in the present application. Support for the amendments to claims 1, 5 and 6 may be found at least in the application as filed. No new matter has been added.

Claim Rejections Under 35 U.S.C. § 102

In order to anticipate a claim under 35 U.S.C. §102, a single source must contain all of the elements of the claim. *Lewmar Marine v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert denied*, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements "arranged as in the claim." *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1274 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by "The Objective Assessments of Fabric Piling-Part 1: Methodology" (by R.B. Ramgulam, J. Amirbayat and I. Porat, J. Text. Inst. 1993, 84 No. 2, hereinafter "Ramgulam"). The Examiner states that Ramgulam discloses all of the elements of the abovementioned claims, primarily in pages 221-223. In addition, Claim 6 stands rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by "Instrumental Evaluation of Fabric Piling" (by B. Xu, J. Text. Inst. 1997, 88 Part 1, No. 4, hereinafter "Xu"). The Examiner states that Xu discloses all of the elements of claim 6, primarily in pages 488 and 489. Applicant respectfully traverses both rejections for at least the reasons set forth below.

A feature of the present invention includes providing a means for grading pillings of a fabric specimen in a simple manner. For this feature, the present invention discloses

a couple of CCD's and a laser beam projector. The three dimensional (3D) image of the fabric specimen is reconstructed directly with the couple of CCD's and the laser beam projector. Both Ramgulam and Xu disclose only a single CCD and do not teach or suggest a couple of CCD's as claimed. Further, neither Ramgulam nor Xu disclose the shift pixels for measuring the height of the fabric specimen, as recited in the claims of the present invention. For the actual height of the fabric specimen in the present invention, the correction is carried out according to the relationship between the shift pixels and the actual height.

Ramgulam and Xu, either alone or in combination, do not disclose the above described procedures and do not disclose the couple of charge devices placed laterally in both sides of the laser beam projector, as claimed. In addition, if a couple of CCD's is installed, the image for representing the height is displayed in a line. Otherwise, if a single CCD is installed as disclosed in both Ramgulam and Xu, the image for representing the height is displayed in a dot. As a result, in the case of the present invention, the height of the fabric specimen is captured at one time, while both Ramgulam and Xu require several times of capturing to measure the height.

In particular, neither Ramgulam nor Xu, teach or suggest, either alone or in combination, obtaining the surface profile of the fabric specimen with a couple of cameras inclined in both sides of the projector laser beam for re-constructing a three-dimensional (3D) image of the fabric specimen together with the height of the fabric specimen and . . . wherein the actual height of the fabric specimen at a certain position is calculated according to pixel shift of an apparatus for measuring the heights of the fabric specimen after establishing the relationship between the pixel shifts and the actual height of the fabric specimen through adjustment of the initial calibration position of the apparatus, the adjustment is measured using three different kinds of calibration blocks, and the pixel shifts is linearly regressed with the actual height, as recited in amended independent claim 1 and similarly recited in amended independent claim 6.

Thus, it is respectfully submitted that claims 1 and 6, including claims depending therefrom, i.e., claim 5, define over Ramgulam and Xu.

Accordingly, it is respectfully requested that the rejection to claims 1, 5 and 6 under § 102(b) be withdrawn.

Rejections Under 35 U.S.C. § 103

In order for an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996). See MPEP 2143. Claims 3, 4, 8 and 9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of Applicant's prior art (FIG. 3).

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ramgulum in view of "Automatic Method Based on Image Analysis for Piling Evaluation in Fabrics" (by Hector C. Abril, Yezld Torres, and Rafael Navarro, Optical Engineering, Vol. 37 No. 1k1, November 1998, hereinafter "Abril"). The Examiner states that Ramgulum discloses all of the elements of claim 5 except, *the linear regression coefficient is 0.99*, which the Examiner further states is disclosed primarily in page 2943, lines 1-33 and FIGS. 7-9 of Abril. Applicant respectfully traverses both rejections for at least the reasons set forth below.

It is respectfully noted that claim 5 depends from claim 1, which is submitted as being allowable for defining over Ramgulum as discussed above. Furthermore, it is respectfully submitted that use of *the linear regression coefficient being 0.99* allegedly taught in Abril or any other disclosure of April does not cure the deficiencies noted above with respect to Ramgulum.

Thus, Applicant submits that neither Ramgulum nor April, either alone or in combination, render obvious the subject matter of amended claim 1. Amended claim 5 depends from amended claim 1, and thus includes the allowable elements of amended

claim 1. It is thus believed that the dependent claims are patentable over the cited references for at least the reasons given above for amended independent claim 1.

Accordingly, it is respectfully submitted that the claimed invention is allowable over the cited references. The Examiner's withdrawal of the rejection of claim 5, and its subsequent allowance is respectfully requested.

Conclusion

In light of the above remarks, the present application including claims 1, 5 and 6 are believed to be in condition for allowance.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the outstanding rejections. If there are any charges due with respect to this response, please charge them to Deposit Account No. 06-1130 maintained by Applicant's Attorneys.

Respectfully submitted,

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